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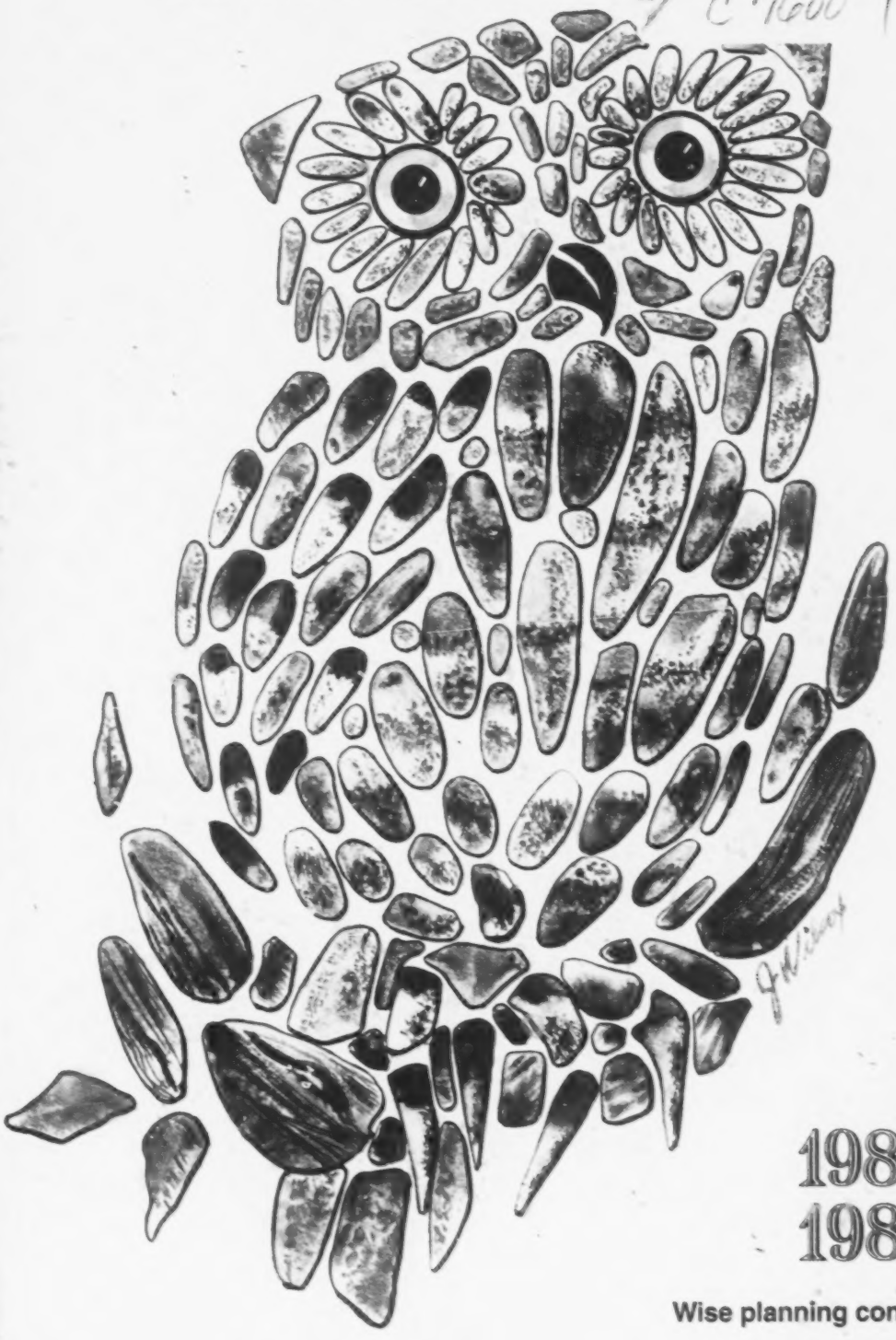

1981 Review
1982 Outlook

Wise planning concern of industry surveys

JANUARY 1982
Vol. 45 No. 9

concrete

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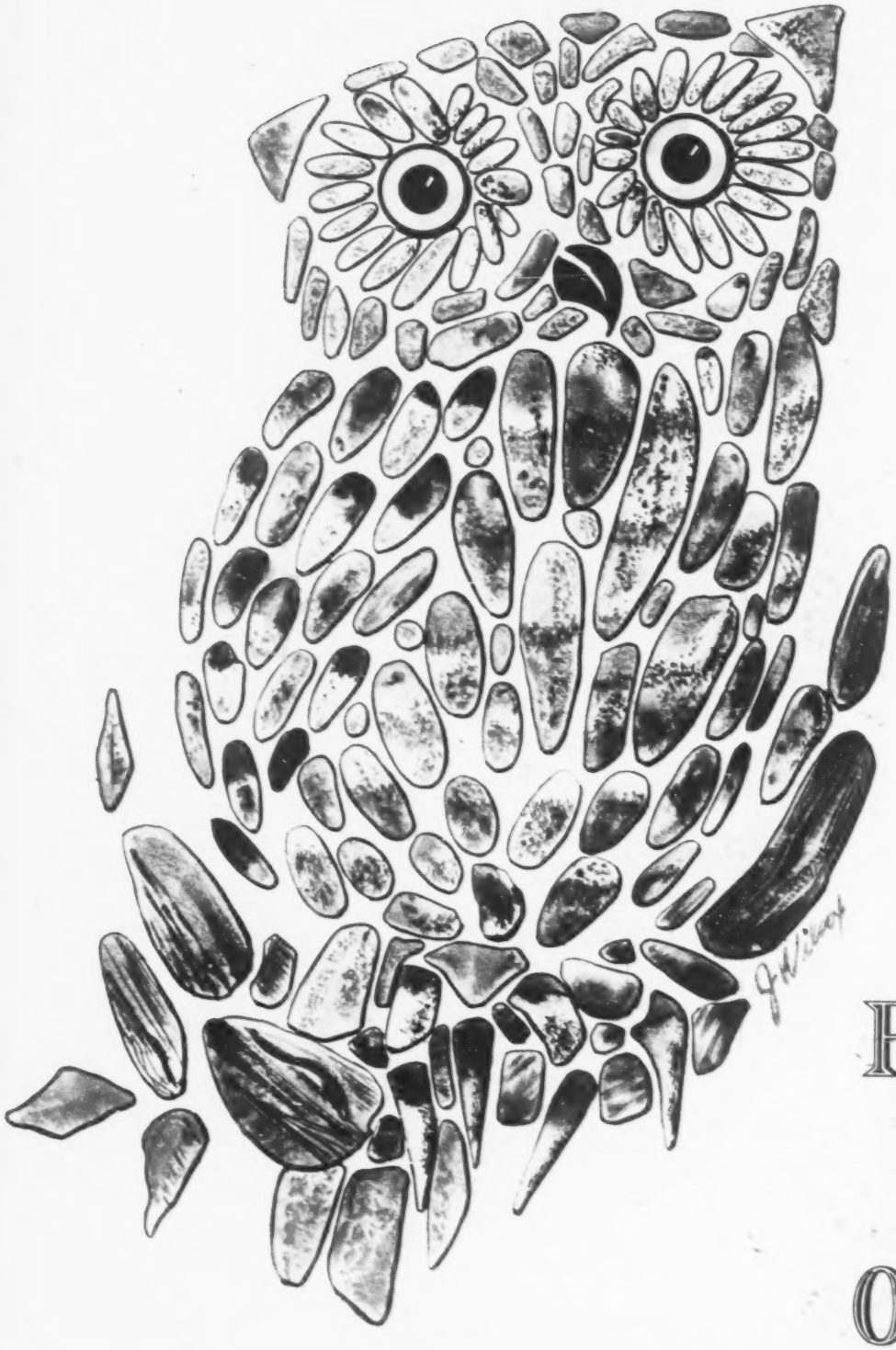
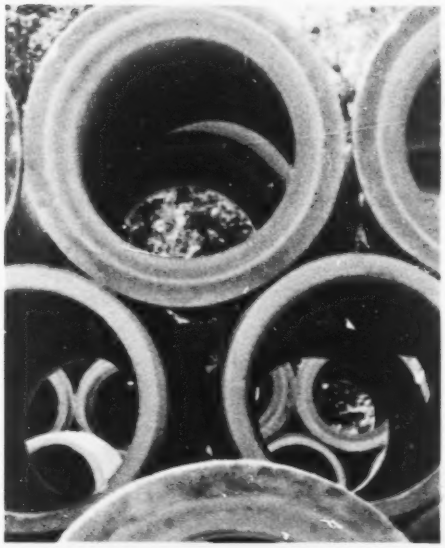
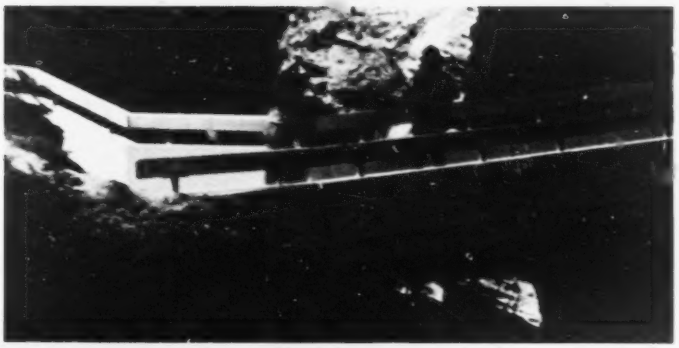


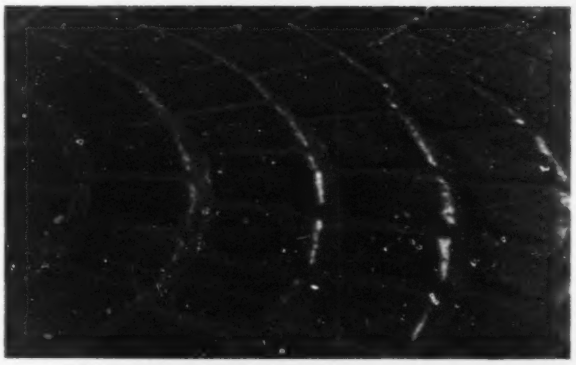
1981 Review

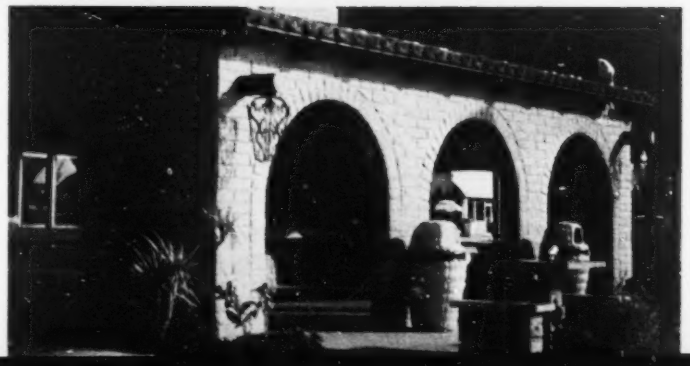
1982 Outlook

The concrete industries









BY SANDY HEROD

The latest annual questionnaire survey made by our staff of the five major concrete industries, along with the commentaries obtained from leaders of national and state industry associations, indicate that these industries fell far short of expectations expressed a year ago with respect to business in 1981.

It then was anticipated that the drops generally experienced during 1980 would be reversed in 1981. However, the survey data submitted to us during the final quarter of 1981 show that almost every industry experienced a drop. The rates of decline ranged from an apparent 4% in ready mixed concrete to an estimated 16% for pipe production. Prestressers, and concrete masonry producers reported decreased business in the range of 6% to 9%; but surveyed precasters averaged a gain of some 12%.

With respect to the coming year, we again find expressions of optimism for an upturn—but to a much more modest degree. Slightly more than one-third of the respondents from the ready-mix, masonry, and precasting industries look for an increase in business in 1982. Within each group, they outnumber, by better than 2-to-1, their colleagues who anticipate a further business drop.

Prestressers were the most optimistic; some 43% look for an upturn. However, our respondents from the pipe industry are of a different persuasion. About 60% anticipate another decrease or, at best, a continuation of the present low level.

Various factors are covered by the questionnaires sent to producers in all five industry groups. The data obtained are tabulated and reviewed in the staff reports. ●

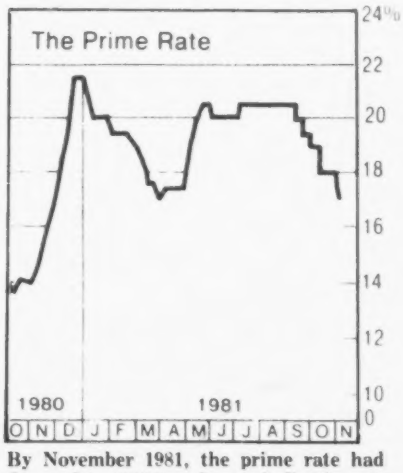
Construction

"Expensive money" continues to hurt construction in '81 relief expected in '82

BY JIM KOSTKA

For several years, a national television advertiser has been asking "How do you spell relief?" His answer—R-O-L-A-I-D-S,—for an upset stomach, but in the case of our national headache, the depressed economy, "relief" spells: FALLING INTEREST RATES.

Most economic forecasters felt, late in 1980, that 1981 would be a year of recovery. They anticipated interest rates would decline steadily, making borrowing money attractive. The early part of the year showed strong indications that this would happen. After peaking at 21-½% at the beginning of the year, the prime rate began to fall; eventually, it dropped as far as 17-½% in March. Construction reacted favorably and showed signs of increased activity. Unfortunately, this period of recovery lasted little more than a month. Inflation continued at a high rate so the prime interest rate was again boosted late in April. By the end of May, it had spurted upward to 20-½%. In June, it eased down to 20% but moved up ½% in July where it remained until late in September. From that point, it has fallen gradually until it reached 16% in mid-November.



By November 1981, the prime rate had dropped to 16½% and gave indications it would continue to decline into 1982.

Stimulated by falling interest rates, construction as a whole should register an increase of about 15% in dollar value in 1982, according to the 1982 Dodge/Sweet's Construction Outlook. (The Outlook is published by F.W. Dodge, a leading forecaster covering the construction industry.) This increase would bring the industry's 1982 dollar volume up to $169.4 billion, surpassing the 1981 total by around $21.6 billion. Much of this increase, however, will be due to inflation. Making an adjustment for that factor, the estimated gain in actual physical construction put in place should be about 7%.

The Dodge/Sweet's Construction Outlook does not include all phases of construction, but, since it covers a major share of the industry, its forecast can be said to reflect the industry in its entirety particularly concerning what direction, and to what extent, construction is headed in 1982.

Housing

Dodge predicts a 20% increase in the sale of existing homes in 1982, up from 2.4 million in 1981 to nearly 2.9 million, and a 22% increase in new housing starts, going from 1.15 million in 1981 to approximately 1.4 million in 1982. Even though this still is a relatively low annual level, in comparison to the yearly average for the past 10 years, it is encouraging to see this important segment of the construction industry headed upward.

Single family houses, it appears, will climb 28%, going from 725 thousand units in 1981 to 925 thousand units in 1982. A smaller rate of increase is anticipated for multifamily housing in 1982 when 475 thousand units are predicted to be constructed. The latter represents a gain of 12% over 1981 when 425 thousand units were built.

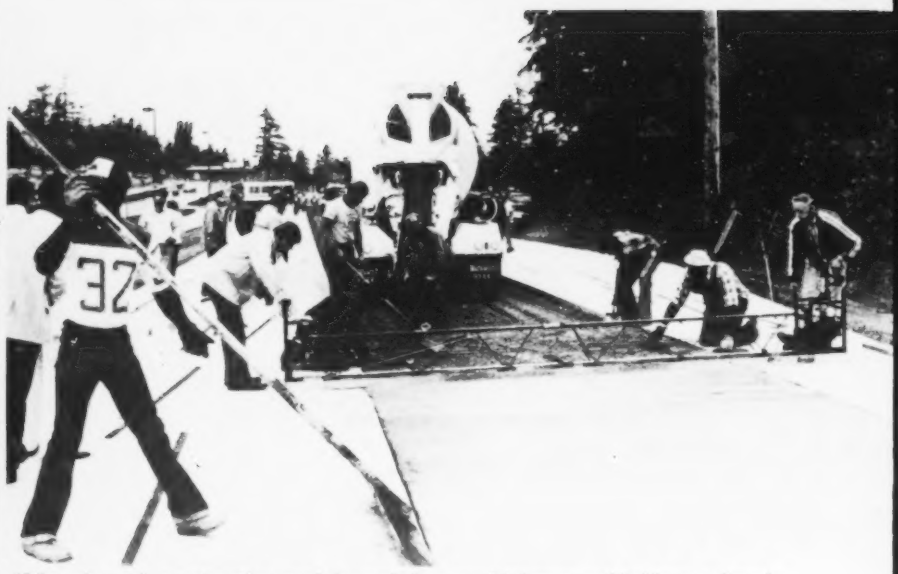
All sections of the country should enjoy about the same percent of increase in the value of residential construction, which, it is said, will be in the 32 to 34% range. The major share of 1982 residential construction dollars will be spent in the sunbelt sections of the country with $36.5 billion going to the South and $20.9 billion to the West. Both the Northeast and Northwest sections will be about the same with a little less than $13 billion.

Office buildings

One of the bright spots in 1981 construction was office buildings. This particular segment of the industry enjoyed a 37% increase in dollar volume over the previous year with a total of nearly $18.5 billion.

This upsurge in office building construction has been developing for 30-35 years. To a great extent, it is the result of the baby boom that followed World War II. Many of the babies born at that time are

After experiencing a very poor year in 1981, home building is expected to recover some in 1982 as interest rates decline.



Although much construction work is needed on our highways and bridges, a drop in user receipt fees has caused many projects to be postponed.

now white collar workers and additional office space is needed to accommodate them.

There has also been a sharp rise in female participation in the labor force, evidenced by the rise from 43% in 1970 to 52% in 1980. This, too, has contributed to the need for additional office space.

Yet another factor causing an increased demand for office space has been the migration of people to the sunbelt states. This influx of new residents and workers automatically put a strain on existing office facilities so new space had to be built to handle the growing number of office workers coming into these areas.

Feeling that office construction peaked in 1981, McGraw-Hill believes it will decline to about $16.4 billion in 1982, a drop of about 11%. For the past few years, only about two-thirds of the huge volume of newly started office construction has been in response to current demand. The balance was needed to reduce a large backlog especially in the rapidly growing Southwest. By the end of 1981, the demand backlog is certain to have been reduced substantially.

Stores and warehouses

There is a close correlation between contracting for stores and offices and housing construction. This was very evident in 1981 when housing starts were down 42% from a 1978 peak volume of more than 2 million units. Contracting for stores and warehouses, which crested in 1979 at 510 million sq. ft., declined 37% by 1981 to an estimated 320 million sq. ft.

The recovery of homebuilding in 1982 will stimulate store and warehouse contracting. This should pull construction in this category upward throughout the entire year, reaching a total of $11.5 billion which is 6% higher than the previous year. Based on square feet of construction, 1982's square footage for stores and warehouses will be almost the same as that of 1981. This is primarily because there is a lag time, from 3 to 6 months, between housing construction and construction in this category.

Industrial buildings

The best opportunity for expansion—if not in 1982, then starting in 1982 and developing more fully in 1983—is industrial building construction. As the Reagan administration strives to create a favorable environment for business capital spending, manufacturing facilities could become, for the construction industry for the next 2 years, what office building has been for the past 2 years.

The incentives for investment—accelerated depreciation and deregulation—already are reality, but there are also several obstacles. Manufacturers are operating at less than 80% of capacity; it looks as if it will be mid-1982 before the stimulus of tax reduction will begin to revive the economy. As a result of this lag, capital spending most likely will be for machinery and equipment rather than for buildings. Tax legislation passed in 1981 provided more liberal writeoffs for machinery than for structures.

By late 1982, and certainly in 1983, as manufacturing increases because of improving economic activity, there will be a growing need for more industrial buildings to keep pace with industry's expansion.

Institutional buildings

The institutional building market—schools, hospitals, public buildings, etc.—has been declining for a decade. School construction has been down due to falling enrollment; hospital construction declined because of previous overbuilding. Now, there is another obstacle to the further growth of institutional buildings in the near future—reduced funding.

In 1981, contracting for institutional building fell from its 3-year plateau to an estimated 259 million sq. ft. and is not likely to stabilize again until some new developments take place. This building market, which is not heavily dependent on the federal government for construction financing, will, nevertheless, be

experiencing federal budget backlash.

Greatly reduced federal support for social programs are severely curtailing state and local government finances. As this scarcity of funding develops, the urgency of social needs is certain to receive priority over local building programs.

Highways and bridges

Federal and state lawmakers must face up to reality and provide adequate financing for our much needed highway programs because our highways are facing the worst repair and maintenance crisis in transportation history. It is claimed by H.C. Heldenfels, senior vice president of Associated General Contractors of America, that 50% of the nation's paved roads require immediate attention, including 15,000 miles of our Interstate System, and that one in every three bridges needs either rehabilitation or replacement.

Much of the financing of highway and bridge construction comes from user-fee receipts. This source of revenue has been declining steadily since 1972. The growing popularity of fuel-efficient vehicles, while helping to solve the nation's energy crisis, is diverting billions of dollars from state and federal highway coffers, the primary source of funding for roads.

The value of highway and bridge construction fell a whopping 20% in 1981 to $9.8 billion. Although the rate of decline is expected to slacken somewhat in 1982, it still will be 13% below the 1981 total, about $8.5 billion.

Sewer, water, other public works

Construction of sewer, water, and other public work facilities is directly dependent upon new housing. Actually it precedes the erection of new dwellings because sewers and water are necessities to any new or existing community.

With the decline in new housing in 1980 and 1981, there was a proportionate drop in the need for sewer, water, and other public works construction. As a result, the value of construction in this category, which was $14.7 billion in 1980, dropped to $13 billion in 1981 and is expected to continue to move downward to $12 billion in 1982.

It's going to take more than a modest upswing in housing to stimulate gains in this type of public works construction. A substantial growth in new housing construction is needed to create a demand for additional sewage and water facilities. This, of course, is contingent upon the availability of money at lower interest rates.

Utilities

The electric utilities industry has gone through considerable change in recent years. In the mid-70s, there was considerable growth when nuclear generation seemed the best solution to the energy crisis. This created excess capacity and lowered expectations of future energy requirements. In the meantime, problems with nuclear contamination, such as experienced at the Three Mile Island plant, has caused disenchantment with this energy alternative. Because it takes time to change the public's thinking as to what source for generating electricity is most acceptable, there is expected to be no more than nominal improvement for generating facilities in 1982.

In the case of the natural gas industry, things are quite different. In 1981, the start of another segment of the Alcan gas pipeline (along the northwestern U.S. border) added $1.5 billion to the year's total of utility construction value. Total value of the pipeline construction is estimated to be more than $14 billion and has strong backing from the Reagan administration.

White House support behind the regulatory changes that would aid financing is expected to accelerate the pipeline's completion. Another $3 billion in contracting, most of it in Alaska, is scheduled for 1982, and it represents the difference between a strong increase or little change in utility construction in 1982.

Assuming that the expected financial backing is obtained, utilities construction should soar 38% and reach a total of $9 billion in 1982. ●

Views of national association leaders:

Richard E. Reuss
President
Portland Cement Association

For only the second time since the 1930s, U.S. cement demand has declined for 2 consecutive years. Estimated shipments in 1981 will be 71.2 million tons. This is 4% under 1980 consumption and 25% lower than 1979's robust 83.3 million tons. For 1982, the outlook is for a modest recovery to 76 million tons at best or, at worst, for another no-growth year.

In both 1982 and later years, the health of the construction industry will be determined by demographic factors, the success of President Reagan's economic program, and the fate of interest rates. At present, and on the basis of conservative economic assumptions, PCA is projecting cement consumption at these levels for the first half of the 1980s.

	Millions of tons
1982	76.1
1983	82.5
1984	88.
1985	89.8
1986	88.6

Portland Cement Consumption
6 year regional forecast
(1000 short tons)

	Actual			Projected				
	1978	1979	1980	1981	1982	1983	1984	1985	1986
Eastern	14,007	13,987	12,497	11,915	12,500	13,180	13,800	13,790	13,350
Great Lakes-Midwestern	14,771	14,168	11,098	10,375	10,550	11,430	12,260	12,940	12,200
Southeastern	13,683	13,146	13,036	13,200	14,360	15,330	16,350	16,550	16,910
North Central	5,364	5,328	4,140	3,975	4,180	4,550	4,910	5,140	4,990
Rocky Mountain-Northwest	6,847	7,111	6,154	5,840	6,700	7,200	7,730	7,900	7,800
Pacific-Southwest	11,363	12,376	10,584	10,020	10,880	11,590	12,250	12,380	12,050
South Central	17,215	17,172	16,435	17,105	18,660	19,820	20,900	21,100	21,300
United States	83,250	83,288	73,944	72,430	77,830	83,100	88,200	89,800	88,600

Although the long-term outlook for cement remains fundamentally strong, prospects are less bright than we predicted in our review and forecast last year.

Housing still the key

The major disappointment in 1981 was housing. Most experts remain convinced that the demand for housing in the 1980s will exceed 2.3 million units per year. The consensus now, however, is that filling that demand will have to be stretched out over more years.

The nation's shortage of housing is already large—about 2.7 million units—and threatens to get much larger. But housing shortages cannot be eliminated quickly. It takes time, favorable credit markets, and a building industry with sufficient capacity. Years of neglect will not be corrected overnight, even with an early economic recovery.

PCA estimates that 1.45 million units will be started in 1982, up from 1 million or less in 1981. This will bolster cement shipments, but not enough to offset the overall weakness in total construction.

Strength in commercial building

Commercial building is likely to be the strongest construction market in the next few years. The physical volume of commercial building awards is projected to show annual increases ranging from 6% to 17% in the 1982-1986 period.

The President's economic program is expected to spur commercial building, once interest rates decline significantly. The new corporate income tax rules, including accelerated writeoffs and provisions to permit companies to buy and sell tax credits, will encourage investment in commercial construction.

Public works still weak

Cuts in government spending at the federal, state, and local levels will reduce public works investment sharply in the first half of the 1980s. In fact, this market is likely to decline as much as 15% in 1982 and 13% in 1983, following drops of 22% in both 1980 and 1981. In many areas, new construction of highways and other public improvements may come to a standstill.

Cement forecast by regions

Even with the decade's slow start, total cement consumption in the 6-year period through 1986 should exceed any comparable period in U.S. history. Although long term projections cannot be precise, accompanying is a summary of the Portland Cement Association national and regional forecast for cement consumption during the next 6 years.

Jon I. Mullarky
Vice President-Promotion
National Ready Mixed Concrete Association

Ready mixed concrete is used in virtually every form of construction. This diversity of market has been the salvation of the industry in 1981. One of our major customers, the home building industry, has been flattened by high interest rates. New housing starts have been at their lowest level since World War II. Government fiscal policy at the national and state level reduced highway construction.

Offsetting housing's disastrous performance this year, commercial construction has remained on an even keel. In fact, according to F. W. Dodge statistics, office building starts have nearly equaled the dollar value spent on this type of construction in 1980. This market is a bright spot in an otherwise gloomy year. By December 31, 1981, ready-mix producers in the United States will have shipped approximately 200 million cu. yd., some five % less shipments than in 1980.

Again this year, many ready mixed concrete companies found that the difference between the disastrous year and an acceptable level of production was the jobs

their sales force was able to promote. Market promotion is fast becoming one of the most vital parts of the ready-mix business. The added yardage, created by promoting concrete parking areas or concrete streets in a community, can and have added thousands of yards to a shrinking ready mixed concrete market.

The Great Lakes-Midwest region of the country, which includes Michigan, Ohio and Indiana, is probably the most depressed construction market in the United States this year. In spite of this depressed market, the Portland Cement Association estimated that promotion efforts for the cement and concrete industries in that region have added at least 240,000 cu. yd. of concrete to the market. Producers in California, Colorado, Florida, and Pennsylvania, to mention a few states, also have benefited from market promotion efforts.

What does 1982 have in store for the ready mixed concrete industry? How you answer this question depends a lot on which economic scenario you happen to believe in. Already this fall, we have seen the prime interest rate move slowly downward. Many economists believe this decline will continue throughout 1982, making money more affordable for construction projects.

On the demand side of the ledger, our nation's housing market has been depressed for several years. Most experts point out that we need approximately 2 million dwelling units each year to provide adequate housing for our population. The decline over the past few years has created a pent-up demand for housing. New investment incentives should encourage business to invest heavily in new facilities provided the cost of borrowing money is reasonable.

Business for the ready-mix industry will start out slowly in 1982. But as the "numbers" begin to work out for the prospective home buyer and businessman, we will see construction activity begin to pick up. This recovery should be visible in the third quarter of 1982. The ready mixed concrete industry can look for a five % increase in production to about 210 million cu. yd. in 1982 with continued growth in 1983.

Paul Lenchuk
President
National Concrete Masonry Association

In the 1981 annual forecast, the statement was made here that, since construction is so sensitive to interest rates, and that no one, not even those in charge of economic policy could predict accurately the rise or fall of interest rates, the problem of forecasting construction activity was made almost impossible. But there is another unsettling aspect to forecasting, i.e., what happens in other countries that influences the future of the United States?

Consider, for example, these forces:

1. OPEC's demand for high oil prices has changed the entire lifestyle of Americans.
2. Japan came to the United States, learned American management techniques, then applied these techniques in a Japanese way. It is now leading the world in productivity.
3. The strains that have taken place in welfare states and the turmoil going on in Poland have changed world opinion about welfarism and communism. The trend toward the left has been diverted.

All these events have changed the future of America. None could have been predicted, and some have affected American construction activity and practices.

The world is growing smaller as communication is reducing the time between the event and when the world knows about it. Therefore, we have to look not only to trends and events in this country, but in the rest of the world. What are some of the trends and events as related to construction and concrete block?

The whole world is developing a block industry. This could not be said as recently as 15 years ago. But every country has some kind of block making capacity in place today. The fastest growing block industry is in the Mideast where several hundred plants are producing block in contrast to 10 years ago when block plants did not exist in this region. This trend hardly justifies the suspicion that block is a dying industry.

The western European countries however, are experiencing the worst construction slump since the depression. Every construction product and every product manufacturing company is fighting for its existence. That's why so many of the better financed companies are buying plants in the United States. Although the United States still produces more block than all of Europe combined, the ownership of block plants is changing from the small entrepreneur.

Wood is now making serious penetration into European markets that have not had such competition before. In particular, wood homes are displacing masonry in some large European markets. This same trend has, and is, taking place in America.

In most places around the world, the standard for concrete block is to make a low strength block which then is used as a rough wall under stucco. This is limiting the growth of the block market into more technologically advanced applications. On the other hand, this type of wall is very competitive to all other methods and, therefore, has contributed greatly to the growth of the block industry in the rest of the world.

What have all these observations to do with forecasting construction activity in the United States?

For those who despair in these depressed economic times, it is encouraging to note that the long term trends for concrete block are not bleak. The rest of the world could not be building a block industry if this were so.

What observations are peculiar to the U.S block market?

Concrete block has had more usage in more structures than any other construction material—from foundation to coping—and, therefore, is subject to more competition as other products draw a bead on that share of the market.

If interest rates, in 1982, remain as high as in 1981, construction, automobiles, and farmers will collapse. Therefore, we can look to some kind of relief. If this does not come in reduction of interest rates, it will have to come through some form of assistance.

All this points to a better 1982 for construction, but not before a severe pinch. That pinch already is underway in 1981. It probably will stretch to the first quarter of 1982 before it lets up.

In the long term, passive solar construction offers concrete block producers a chance to enlarge their sales in the single family home market. As sales are lost to gypsum, wood, and to metal fireplaces and chimneys, the public demand to decrease energy costs will eventually compel homebuilders to use mass as a collector of the sun's energy. This is a market that needs promotion and development now so the sales will be there when home construction rebounds.

Fromy Rosenberg
Executive Director
Prestressed Concrete Institute

1982 promises to be an exciting year. The new tax incentives, a steady downward trend in interest rates, combined with an aggressive PCI marketing communications and technical thrust, are creating conditions for further penetration of precast and prestressed concrete products into existing and new markets.

The dramatic increase in energy cost during the past several years has impacted the building industry. To promote awareness of the energy savings characteristics of precast and prestressed concrete construction, PCI has prepared a slide presentation and a technical brochure on this subject. These materials are directed towards the architect, engineer, owner, and building developer.

1982 will see a broadening of the marketing and communications activities of the Institute. This program is expected to include national advertising in key trade magazines, development of brochures for direct mail, and an intensive public relations and media campaign.

To serve the industry, PCI will organize in 1982 many schools, seminars, workshops, and courses. These events will cover subjects such as quality control, production, management, detailing, sales, estimating, etc. A noteworthy seminar for plant engineers will be offered May 24-27 to acquaint them with the latest design information.

The technical work at PCI is an ongoing and integral part of the Institute. Some 17 technical committees develop design recommendations and reports vital to the growth of the industry. A new committee is working on a combined—structural and architectural—Industry Design Handbook. This publication is expected to become the authority for the design of precast and prestressed concrete structures.

PCI has a strong commitment to education. Our members recognize the importance of educating engineers to work in our industry and of exposing future consultants to prestressed concrete design. To this end, we work closely with the universities and annually sponsor a Student Design Awards Program as well as university fellowships.

In summary, 1982 will be a good year. Precast and prestressed concrete will make further inroads in present markets. New markets such as insulated wall panels, concrete railroad ties, bridge replacements, marine structures, glass fiber reinforced concrete, poles, etc. show a good deal of promise to the industry.

Robert W. Walton
Executive Vice President
National Precast Concrete Association

We've heard the saying that if "you lay all the economists end to end, they still wouldn't reach a conclusion." In venturing an opinion on business conditions for precasters in 1982, we are cognizant of such problems related to "crystal ball gazing;" but, as we monitor the various publications available to the NPCA staff, some reasonable conclusions are apparent.

Many analysts see no sharp decline in interest rates through 1982, though they are edging lower as this forecast is being prepared. Indications are that heavy government and corporate borrowing will put upward pressure on interest rates; also, it is expected the Federal Reserve Board will continue to slow monetary growth. With the prospect of little change in the high interest rates in 1982, we see continued weakness in the 1982 housing market which translates to lower precast product sales to this vital sector of the economy. Commercial

construction also looks doubtful for 1982, and precasters, oriented in that direction, have reason for possible caution. It also is significant to note that the economy has shown a surprising ability to deal with high interest rates, a phenomenon which lessens the prospects for a recession that would curb private borrowing and drag down interest rates—rates that would stimulate improved activity in the construction sector.

The make-up of the NPCA membership cuts across widely diverse product line interests. Because of this diversity, a well defined pattern, from a business activity standpoint, cannot be discerned. As indicated before, those tied closely to the housing market will likely find the 1982 road a bumpy one. Also, as a result of the Administration's effort to reduce government spending, public works outlays are expected to decline; hence, those precast producers involved with public works-related markets will see downward pressures on sales volume. Likewise, the outlook for transportation products is unclear because of reduced state and federal highway funding and lower tax revenues due to declining levels of fuel consumption.

The National Precast Concrete Association is making a transition to a promotional orientation. New programs are being developed that have a strong marketing thrust with the inventory product line producer at the focal point. New programs will be unveiled at the 1982 NPCA Convention in Houston in February (14-17). Faced with less than "boom" conditions in 1982, NPCA intends to take a strong leadership role in assisting members improve their position in today's market-place.

Richard E. Barnes
President
American Concrete Pipe Association

Total estimated production of concrete pipe in the United States during 1980 was 10.7 million tons, or approximately 55 million ft. This represented a drop of 16% from the 12.8 million tons sold in 1979, with all major end use categories declining as indicated in the accompanying graph.

ACPA conducts an annual survey, to determine total U.S. and Canadian sales of concrete pipe, which enables us to maintain a record of trends within the industry. However, the survey begins in December of each year; therefore, only limited data are available as this is written for predicting 1981 sales and forecasting 1982 estimates.

Early in the year, it had been projected that 1981 sales would improve, but it appears industry sales may be equal to, or slightly less, than 1980 sales. Producers in the north central and southeastern areas of the country continue to be seriously affected by the decline in construction activity while certain areas of the Southwest, Midwest, and western areas are experiencing continuing demand. Plants have been closed in some parts of the country; some are working at reduced levels, and it presently appears that 1982 markets will remain extremely soft.

Congress still is reviewing legislation on all the federal agency construction programs which impact upon the concrete pipe industry; the Administration is adjusting the March 1981 budget proposals with a 12% across-the-board cut, (another budget cut is rumored for the near future); therefore, it is impossible, at the time of this writing, to forecast final congressional action.

In March 1981, President Reagan sent Congress his proposed fiscal 1982 (beginning October 1, 1981) budget. If that proposal had been adopted, the industry would have had a potential federal construction market of almost $15 billion. However, since the Administration sent its legislative reform proposals for federal agency programs to the Congress, plus the 12% second round cuts, not only has this market been reduced, but the House of Representatives is taking issue with the Senate's approach toward the reform legislation.

Two examples of the confrontation are occurring in the highway programs administered by the Federal Highway Administration and in the construction grants program for the construction of waste-water facilities under the jurisdiction of the Environmental Protection Agency. The Senate presented a multi-year, reduced funding reform bill on FHWA and EPA whereas the House has limited its reform and funding, delaying major legislation for these agency programs until next year. If the Congress does not act on the EPA legislation this year, and satisfy the Office of Management and Budget with its final version of the bill, the EPA construction grants program could have either zero funding for fiscal 1982 or $2.4 billion, minus the 12% cut, reducing it to $2.1 billion.

Congress also is deadlocked on highway legislation. The President proposed an FHWA budget of $8 billion, the 12% cut reducing it to $7 billion. The House of Representatives is firmly behind a 1-year, non-reform bill of $8.44 billion while the Senate has acted on a multi-year reform bill for fiscal 1982 totaling $7.4 billion. If the House and Senate Conference Committee is unable to reach a compromise, existing law provides $7.99 billion for fiscal 1982, a figure well above the limit set by the OMB.

The American Concrete Pipe Association has formally supported the economic proposals of the Reagan administration, including reduction in the growth of government spending and the proliferation of federal regulations, along with individual and business tax reductions. The reductions in federal funding will directly impact upon the sales of our members, but they recognize that deficit spending and excessive taxation have led this country to the brink of economic calamity. We also submitted testimony to the

House of Representatives Commitee on Public Works and Transportation and to the Senate Committee on Environmental Pollution concerning the mechanics involved in the funding of federal construction programs. We feel all these programs, taken in total, will be to the final benefit of the United States and to the concrete pipe industry.

So—what is our forecast for 1982? A major factor in that determination is interest rates. While they are tending down at this writing, economists are projecting they will increase in early 1982. A reduction in interest rates will help to break the fiscal dam retarding home building, and the concrete pipe industry would immediately feel the result of that effect since sewers and roads must go in before actual home construction. Many communities are being retarded in their economic revitalization efforts because their streets, roads, sewer, and water systems are limited, obsolete, or worn out. Numerous studies indicate that the availability of these public facilities is a more important consideration in determining the location of business than are tax incentives or industrial revenue bond financing.

An orderly approach to public capital investment must replace the procedures of the legislative process of the past. Our only recourse is to begin the difficult task of rebuilding our public facilities as the prerequisite to economic renewal, and that renewal must be the focus for domestic policy in this decade. 1982 probably will be a year of change and decreased activity for the concrete pipe industry, but, if we can hold on until the importance of public works programs is recognized and locally funded, the latter half of the decade should challenge our production capacity.

State association leaders comment:

MICHIGAN

Jim Murner
President
Michigan Ready Mixed Concrete Association

1981 was similar to 1980 for the ready mixed concrete industry of Michigan. Based on the 1981 cement shipments, the volume of ready mixed concrete supplied decreased about 8% from the 1980 level. The 1980 cement shipments showed a decrease of 30% in the ready mixed concrete volume from the excellent year of 1979.

A better indicator of the 1981 industry in Michigan is our association's survey of its 100 ready-mix producer members. This survey showed that a majority of the producers operated at 50-70% of their sales volume for a normal year. Let me point out, however, that most producers feel some improvement will occur during the third quarter of 1982.

The business decline over the past 2 years can be attributed to a double whammy from the nationwide interest rate crunch and Michigan's high dependency on the slumping auto industry. In a few areas of the state, the economy is not auto-related and, except for the single family housing market, producers in these areas have had a good year. Some companies throughout the state have been able to maintain a good sales volume by picking up the majority of the commercial/industrial and/or public works projects in their area.

The association's member survey did have some bright spots. The survey showed a good market penetration into the parking lot market. The producers who sold parking lots reported sales ranging from 200 to 3,000 cu. yds. per company. The farm concrete market also increased throughout most areas of the state. The other growth market for ready mixed concrete reported in the survey was earth sheltered homes. Some producers supplied as many as 10 earth sheltered homes in 1981.

The general outlook for 1982 is that Michigan will have a slow start in the spring with some improvement in business during the third quarter. The degree of the gearing up by the auto industry and its related businesses for the 1983 model cars is a prime factor in what happens during 1982 in Michigan. The other major factor is the interest rates. It should be noted that there is a pent-up demand for housing. Also, many ready-mix producers feel the housing market will have a shift to more apartments, condominiums, and the smaller "no-frills" single family homes.

Guarded optimism sums up the feelings of Michigan ready-mix producers regarding a business turnaround in 1982.

FLORIDA

Stanley I. Hand
Executive Director
Florida Concrete and Products Association, Inc.

Simply stated, interest rates are the key to 1982's business situation in Florida. If they continue downward and the long term mortgage rates decline, we will have a housing boom and a general prosperity similar to what we enjoyed in the early '70s. The housing market is the backbone; if that takes off, so will everything else.

If interest rates remain inflated, the housing market will remain non-existent and our only hope is to stay somewhat busy with commercial and government work.

The commercial market in Florida was good the first 8 months of 1981. It flattened out in the latter part of the year and will continue to decline unless long term rates of interest continue to fall.

In my estimation, Florida will experience a building expansion and general prosperity if mortgage rates get to 12-13% and stay there. All the factors are present: a continued influx of people, Reaganomics, and an impatience to get started! But not at interest rates of 21%, 19%, 17% or 15%. As I said, interest rates are the key and will determine whether Florida has an outstanding, mediocre, or poor 1982.

INDIANA

Richard O. Albright
Executive Director
Indiana Concrete Council

The forecast prepared for 1981 was based on the premise that "things can't get any worse." We were wrong again. The decline in business from 1980 to 1981 will not be nearly as large as the 23% drop from 1979 to 1980, but it will be 7-10%. The factors that contributed to a bad 1980 could be reiterated almost verbatim to explain 1981's problems.

As we start 1982, we can recognize that steps have been taken to slow the rate of government growth and to provide incentives for savings and capital expenditures. These measures have not had enough time to affect the construction market.

At the same time, declining interest rates still are high indicating a lack of confidence in Congress' ability to reverse past practices and get inflation under control. As long as expectations of inflation keep interest rates high, home construction or automobile manufacturing will not experience a strong revival. Since industry generally is experiencing a low use of manufacturing capacity, there is no reason to expect significant industrial expansion in the near future. Farm income still has not improved due to low prices and high production costs.

The most optimistic economists predict an end to the current recession in the first quarter of 1982. If the recession ends early in the year and if inflationary pressures are not continued with large increases in labor contracts and escalating costs, the construction picture should start to brighten in the third or fourth quarter of 1982. This unfortunately means the recovery will be too late for the construction season in the Midwest.

An optimistic prediction for 1982 probably is some improvement over 1981. This may be a refusal to recognize that things can get worse. On the other hand, positive steps have been taken on the long path toward economic stability.

The bad business climates of 1980 and 1981 have resulted in extremely competitive pricing practices and very little profit. The competition also has prompted many more concrete producers to get out and work hard to increase their markets by converting projects from asphalt to concrete. These promotional successes often resulted from joint efforts with paving contractors. Continuation of these joint efforts should result in increased sales throughout the industry.

KENTUCKY

James A. Lyons
Executive Director
Kentucky Ready Mixed Concrete Association

About this time a year ago, the same questions were being posed as are posed every year. "What happened and what's happening?" Last year the answers were "Market will begin 13% growth"—"Brakes put on 1980 slide;" forecasters had just finished a bleak year (along with the rest of us) and were looking forward to better times. We in the ready mixed concrete industry, being ever optimistic, gullibly agreed, for we had just finished a year (1980) that probably was as bad as we could remember or wanted to remember. New records were set for lows and there certainly was no way to go but up.

A review of 1981 has taught us one thing—records are made to be broken. Now we hear the downward trend will continue through the last quarter and maybe into the first quarter of 1982, but, after that, we will see a slow growth. The forecasters don't know and won't say how deep the recession will be or when it will end.

The construction industry is one of the largest, if not the largest, industries in the country; it is basic to the economy and well-being of our country. Ready mixed concrete is basic to the construction industry—when things get built, concrete is part of it.

The recovery for the ready mixed industry will be slow and painful. Of necessity, producers have allowed their equipment and fleets to deteriorate—they simply could not afford to maintain them or replace them. Reserves have been used up and when construction begins its growth, many companies will be lacking in their ability, because of lack of equipment and personnel, to keep pace. The best estimates from members of the ready-mixed industry vary from "flat" to a "slightly upward" trend by year's end.

Our personal opinion is that if the programs started by the Administration at the beginning of last year are allowed to develop and work, there will be a sharp upward trend. However, if the Administration fails in its efforts to slow inflation and decrease interest rates, we haven't seen the end.

THE CAROLINAS

Virgil S. Weathers
Executive Director
The Carolinas Ready Mixed Concrete Association

The ready mixed concrete producers in the Carolinas are looking forward to 1982 with increased determination to promote new markets. We see little to be encouraged about in the residential market until interest rates decline substantially. However, the paving market shows promise of improving. New expertise and effort in this market will help offset the slump in other areas.

The Carolinas have suffered less than most areas of the country, but we are far from happy.

We will spend additional funds on promotion, will work harder to obtain alternate specifications for streets and parking areas, and will make every effort to bring about a substantial improvement in our industry before 1982 is history.

NEBRASKA

Russ Eichelberger
Executive Secretary
Nebraska Sand, Gravel & Ready Mixed Concrete Association

We Nebraskans are biologically optimistic; however, our optimism has been dampened somewhat this past year or two.

Nebraska's 1981 ready mixed concrete production is down some 25% from 1979 and possibly 15% from 1980. Roughly, the same holds true for sand, gravel, and limestone.

We are predicting a slight increase in sales and production in 1982 and 1983—possibly some 5-10% in 1982 and 15-20% in 1983.

The residential market was the most adversely affected by the economic downturn with commercial, heavy, and highway markets not far behind. We predict the residential market will be the first to recover.

The most helpful action on the part of our stage legislature would be to make possible lower cost money for mortgages.

Nebraska has an extremely high gas tax, perhaps the highest in the nation. Our tax fluctuates monthly based on the average price the state pays for fuel. Highway maintenance and repair did help, to a small degree, to offset our reduction in new construction.

Without a doubt, high interest rates were most instrumental in triggering our downturn. Inflation was a close second. Weather was ideal for construction—if we only had had the work.

We feel most fortunate that we lost only one of our members through bankruptcy.

We can report one bright spot. The federal inspectors for MSHA and OSHA have certainly been more humane under the new administration.

In summary, we, in Nebraska, are optimistic that, beginning by mid-1982 and continuing for many years, we will be headed upward.

OREGON

A. G. "Art" Heizenrader
Managing Director
Oregon Concrete & Aggregate Producers Association, Inc.

In the Pacific Northwest, we're experiencing more than "a mild recession." The region's largest resource is timber. With the housing market off throughout the nation, forest product sales have been reduced severely. As of this writing, more than 50% of all Oregon mills are shut down. Oregon's unemployment rate is among the highest in the nation (10.6%).

The Oregon housing industry reached a record low in August. Building permits totaled 540 for single family homes, down from 1,541 permits issued in 1980. A local economist predicts another major drawback to future housing will be the recent doubling of rates on new veteran home mortgage loans. The change is expected to further affect middle- and low-income families.

The effect upon our sand, gravel, crushed stone, ready mixed concrete, and asphalt paving industry is two fold! With the housing markets (our bread and butter) crippled by high interest rates, we are hearing some very discouraging words from our state association membership.

Especially hard hit are lumber-producing communities where concrete and aggregate producers also supply rock products for logging roads and mill operations.

Coupled with the normal seasonal trends for all kinds of construction, we expect a very hard winter. A local forecaster predicts "a slow, slow, slow recovery—slow acceptance of the Administration's economic program, slow decline in interest rates, and slow business expansion."

In a state where our industrial base is geared primarily to export, the current frustration has elected officials and industry leaders seeking diversification. However, Oregon's restrictive environmental regulations and tight land use policies make them hard pressed to find short term resolutions.

In the meantime, our association has joined with others in a "Coalition to Save Oregon's Economy."

The Oregon Concrete and Aggregate Producers Association has initiated a program entitled "Prepare for the Recovery!" Its purpose is to stress more efficient production. We're looking at improving our operations through energy conservation and educational programs. An association-sponsored Product Development Committee will seek ways to expand present markets as well as promote new uses for rock products.

CALIFORNIA

southern California
Don Reining
President
Southern California Rock Products Association
Southern California Ready Mixed Concrete Association

In the five counties of southern California with which our association is concerned—Ventura, San Bernardino, Riverside, Orange, and Los Angeles—the sale of rock products was down 5.3% at the end of the third quarter. In the ready mixed concrete industry, production was down 3.1%. (These figures compare to the same quarter of 1980). The outlook for the fourth quarter depends a lot on the weather.

Looking to the future, the passage by the California legislature of a bill which increases the gas tax and other vehicle-related fees will add more than $200 million to highway revenues. Had the bill not passed, legislators expected shortages in the state highway account as early as the last quarter of 1982.

In 1975, legislation was passed that requires the state's chief geologist to classify and designate mineral lands of state-wide or regional significance. This program is moving right along; in January 1981, the San Fernando Valley deposits in the city of Los Angeles were classified and designated.

A lawsuit from property owners was filed after the designation; in due time, the courts threw the cases out. We believe this monumental legislation is beginning to pay benefits to the industry.

To explain the economic out-

look, I would like to quote from the Bank of America's "Economic Outlook—1981, California Report" released in September, 1980.

"Bank of America expects further economic expansion in California during the coming year as the nation's economy begins its recovery. However, real growth in the state will be sluggish—up about 2%. The upturn will be tempered by the strains of high inflation, the remnants of a relatively deep U.S. recession, continued restraint in the nation's monetary and fiscal policies, and slow growth in the world economy. Also, the outlook is clouded by volatility and uncertainty in domestic money markets. Still, California will better the national averages in most economic categories. Record levels are predicted for the state's employment, personal income, retail sales, business revenues, international trade, and farm income."

In the area of promotion, we feel there has been a definite breakthrough in the concrete parking lot program. Our Products Promotion Committee is in the process of contacting major developers and giving them the facts and figures of the economics involved in placing concrete parking lots.

The number of concrete intersections poured in the last decade has been most gratifying; no concrete streets or intersections had been poured since the 1930s in southern California. This has been another market for our members—one in which we hope to make more inroads in the future.

Ready mixed concrete: 1981 industry survey

BY SID LEVINE

The slowdown in construction activity, particularly in the historically important housing segment, has led to a decrease in ready mixed concrete consumption in the United States. Demand in 1981 dropped to an estimated 195 million cu. yds., about 3.7% below that of 1980 and 13.2% below the 1978 record of 224.7 million cu. yds. The value of industry shipments was estimated at $10 billion. CONCRETE's annual survey of ready-mix producers indicated that 36% of the producers had increased their 1981 output, 50% had decreased production, while production for the remaining 14% had remained the same as in 1980.

Housing starts for 1981 are expected to drop to 1.070 million units, the lowest since 1946 when the country's population was half of what it is now, according to a preliminary estimate by the National Association of Home Builders. According to McGraw-Hill's annual construction market forecast, the "1982 Dodge/Sweet's Construction Outlook," the excessively high interest rates that have been so damaging to the housing market in 1981 will not prevail much longer. With a modest decline of mortgage rates, the report predicts that the 1982 housing starts may range between 1.4-1.5 million dwelling units.

The Dodge report predicts that construction contracts in 1982 will total $169.4 billion, 15% more than the estimated 1981 value of $147.8 billion. Residential construction is expected to amount to $82.8 billion, a 33% increase over 1981's $62.1 billion; nonresidential building contracts to reach $57.1 billion, a 1% gain over 1981's estimated $56.3 billion; and nonbuilding construction is expected to total $29.4 billion compared to $29.5 billion in 1981. A detailed review and forecast for construction in the United States by Jim Kostka appears elsewhere in this issue.

The annual value of new construction put-in-place in the United States amounted to $227.8 billion in 1980 (equivalent to $102.8 billion in constant 1972 dollars) and $229 billion ($114.7 billion in constant 1972 dollars) in 1979. Although the total value of new construction is expected to rise about 18% in 1981 from the previous year, more than half the increase will simply reflect higher input costs.

The demand and output patterns of the ready mixed concrete industry are very similar to those

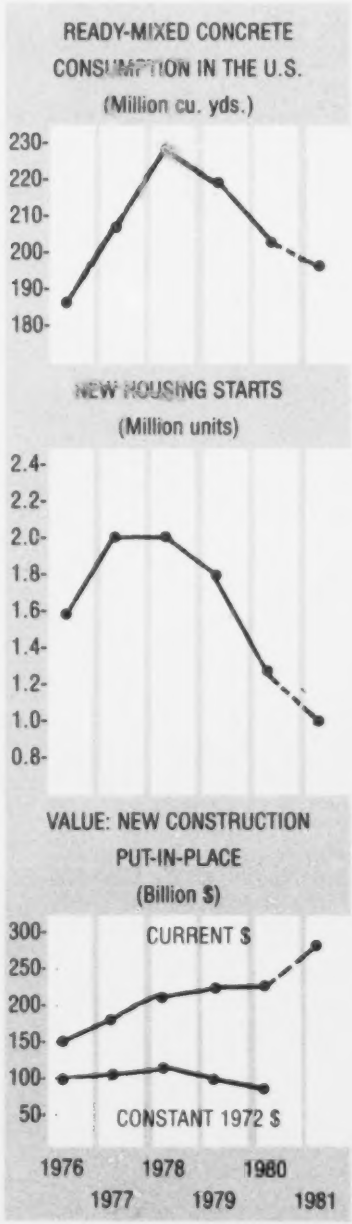


Fig. 2
Ready-Mixed Concrete Consumption in the United States: 1976-82
(in million cubic yards)

1976	186.9
1977	206.5
1978	224.7
1979	219.8
1980	202.5
1981 (est.)	195
1982 (est.)	209

Fig. 3
New Housing Units Started

	Number of units
1976	1,547,600
1977	1,989,800
1978	2,023,300
1979	1,749,200
1980	1,298,800
1981 (est.)	1,070,000
1982 (est.)	1.4 to 1.5 million

Fig. 4
Total New Construction Put-In-Place in the United States
(Value in billion dollars)

	In current dollars	In constant 1972 dollars
1976	$151.054	$104.995
1977	173.975	111.333
1978	205.457	116.943
1979	228.950	114.698
1980	228.706	103.527
1981 (est.)	270	—

Fig. 5
Production Changes: 1981 vs. 1980

	Region				
	Northeast	Southeast	North Central	West	Southwest
Respondents with:					
(A) Production increase (%)	46%	33%	20%	33%	50%
(B) Production decrease (%)	46	52	63	53	34
(C) No production change (%)	8	15	17	14	16
Total (%)	100%	100%	100%	100%	100%
(A) Respondents with production increases in the following ranges:					
1-10%	58%	43%	18%	34%	26%
11-20%	25	21	38	24	32
21-30%	8	29	26	24	16
31-40%	0	0	0	6	5
41+%	9	7	18	12	21
Total (%)	100%	100%	100%	100%	100%
(B) Respondents with production decreases in the following ranges:					
1-10%	43%	23%	12%	18%	23%
11-20%	16	45	36	30	38
21-30%	9	14	26	18	15
31-40%	16	4	14	16	15
41+%	16	14	12	18	9
Total (%)	100%	100%	100%	100%	100%

Fig. 6
Anticipated Business Change: 1982 vs. 1981

	Region					
	Northeast	Southeast	North Central	West	Southwest	U.S. Average
Respondents anticipating:						
A. Business increase (%)	32.3%	31.1%	34.5%	40.0%	41.5%	35.74%
B. Business decrease (%)	—	26.3	18.4	12.7	14.6	15.97
C. No change (%)	48.4	20.3	21.8	32.7	26.8	27.76
D. Not sure (%)	19.3	22.3	25.3	14.6	17.1	20.53
Total	100%	100%	100%	100%	100%	100%
A. Increase anticipated by respondents (in %)						
Average	13.8%	11.9%	17.7%	13.3%	13.5%	—
Range	3-30	8-25	5-50	5-25	1-40	—
B. Decrease anticipated by respondents (in %)						
Average	—	11.7%	16.2%	12.4%	13.3%	—
Range	—	5-25	5-40	5-15	—	—

Fig. 7
Price and Cost Changes: 1981 vs. 1980 (in percentages)

	Northeast	Southeast	North Central	West	Southwest	U.S. Average
Price Changes						
Respondents indicating price increases	83.9	80.0	68.5	74.5	70.7	75.5%
Average increase	8.7	9.2	7.4	8.9	8.2	8.5%
Range of increases	5-20	5-20	5-15	5-17	2-20	2-20%
Hourly Wage Changes						
Respondents indicating wage increases	90.3	86.0	82.6	89.1	90.2	87.6%
Average increase	8.6	8.2	8.9	10.3	10.4	9.3%
Range of increases	5-10	3-20	5-13	3-17	5-30	3-30%
Maintenance Cost Increases						
Average increase	12.8	14.2	14.4	16.0	16.3	14.7%
Range of increases	5-30	2-35	2-45	2-50	1-35	1-50%
Raw Materials Cost Increases						
Average increase	11.0	10.2	9.4	9.7	12.6	10.6%
Range of increases	2-20	5-40	5-15	5-30	2-40	2-40%
Fuel/Energy Cost Increases						
Average increase	14.6	14.7	15.9	16.7	20.6	16.5%
Range of increases	3-35	5-35	5-40	2-50	4-90	2-90%

of the cement industry. About 30% of total cement consumption usually goes into residential construction, 22% into private industrial and commercial building, 7% into public building, 18% into public works, 18% into transportation (highways, railroads, mass transit), and 5% into other construction.

By type of customer, 1980 portland cement shipments were: Building material dealers, 7.1%; concrete product manufacturers, 12.9%; ready mixed concrete, 67.8%; highway contractors, 4.4%; other contractors, 5.9%; federal, state and other government agencies, .6%; miscellaneous, including own use by producers, 1.3%.

Shipments by cement types were: General use and moderate heat (Types I and II), 90.44%; high-early-strength (Type III), 3.33%; sulfate-resisting (Type V), .33%; oil well, 3.37%; white, .41%; portland slag and portland pozzolan, 1.12%; expansive, .12%; miscellaneous, .88%.

The ready mixed concrete industry is characterized by a large number of small firms that serve local markets. In 1977, there were about 4,300 companies with 5,400 establishments. Most plants were very small; only 1,400 had 20 or more employees. Most (about two-thirds) were dry-batch plants; almost a quarter were central-mix operations; and about 10% were portable mixing facilities.

Business changes

CONCRETE's annual survey indicated that 36% of domestic ready-mix producers had output gains in 1981 over 1980's production; 50% reported decreased production; and 14% said their output did not change. Production gains ranged from 50% in the Southwest to 20% in the North Central states. Drops in output varied from 63% in the North Central region to 34% in the Southwest. Production changes for the several regions are given in the accompanying tables.

Anticipated business changes for 1982 compared to 1981 for a U.S. average were: Increase, 35.75%; decrease, 15.97%; no change, 27.76%; not sure, 20.53%. Average increases and decreases projected by respondents to the CONCRETE survey were 14% and 13%.

Price and cost changes

About 76% of the survey respondents indicated that they had raised ready-mix prices in 1981. Price increases ranged between 2-20%, averaging 8.5%. Hourly wages were increased in 1981 by 88% of the survey respondents, for an average increase of 9%. Price and wage ranges for the several U.S. regions are given in the accompanying tables.

Maintenance costs rose about 14.7% in the United States in 1981. As usual, the most troublesome of costly maintenance problems were attributed to trucks and mixers. Tires, transmissions, engines, drive trains, drums, hydraulic systems, and suspensions all contributed to maintenance needs.

Raw material costs for respondents in 1981 went up around 10.6%, ranging between 2-40% increase. The fuel and energy category showed a 16.5% increase, with a very wide range of between 2-90%.

In response to the query "What % of your sales dollar was spent on advertising, marketing and/or promotion?" the average allotment ranged between 1.4-1.8%. The percentage allotments for the several U.S. regions are given in an accompanying table.

Anticipated 1982 expenditures

Ready-mix producers were queried in the CONCRETE survey on their 1982 plans for plant and equipment expenditures, including new plants, modernization or expansions, and new equipment purchases. Expenditures for new plants in 1982 were projected by 11% of the ready-mix producers. About 2.2% of the producers estimated plant costs to range from $300,000 to over a million dollars.

Modernization and expansion projects have been planned by 30% of the respondents. Cost estimates ranged from $10,000 to 1½ million. About 31% of the respondents indicated that they expected to buy new equipment in 1982. Anticipated expenditures ranged between $50,000 to more than $1.5 million. ●

Fig. 8
Anticipated Plant and Equipment Expenditures for 1982

	Cost range (dollars)	Percent of respondents
New Plants	$ 50,000- 100,000	2.2%
	$ 100,001- 200,000	4.1
	$ 200,001- 300,000	2.2
	$ 300,001- 500,000	1.1
	$ 500,001- +	1.1
Modernizations/Expansions	$ 10,000- 49,999	8.6%
	$ 50,000- 99,999	4.1
	$ 100,000- 199,999	4.8
	$ 200,000- 499,999	2.2
	$ 500,000-1,500,000	0.7
New Equipment	To $50,000	5.6%
	$ 50,001- 100,000	8.9
	$ 100,001- 200,000	8.9
	$ 200,001- 300,000	2.6
	$ 300,001- 500,000	3.0
	$ 500,001-1,500,000	1.5
	$1,500,000- +	0.7

Fig. 9
Sales Dollar Allotment for Advertising/Marketing/Promotion in 1981

Respondents alloting:	Northeast	Southeast	North Central	West	Southwest
½% or less	16%	23%	32%	35%	14%
1%	42	40	33	21	36
2%	26	23	21	21	36
More than 2%	16	14	14	23	14
Average allotment	1.7%	1.4%	1.6%	1.5%	1.8%

Masonry production reflects depressed construction markets

BY PATRICIA MURPHY

The continuing truth of depressed construction markets was reflected in the answers to CONCRETE's 1981 survey of masonry producers. Respondents reported a production decrease, on a national basis, of 9.5% only slightly better than last year's 10.2%.

Again, the North Central region had the dubious honor of reporting the greatest drop in production—13.9%. Other regions were not far behind. The volume of production in the Southeast was down for most of the producers in that region by 11.8%. In the Northeast, the drop was 6.6% and in the West, it was 10.9%. Only the Southwest recorded a small increase in volume—.07%.

Lightweight production answers provided a mixed bag. Of those answering, about 68% produce both lightweight and standard weight units. Of that number, more than half neither increased nor decreased their ratios of lightweight to standard weight. Almost 23% produced about 4% more lightweight; nearly 25% decreased their lightweight output by about 7% (weighted averages).

Costs:

The cost of doing business continued its upward spiral in 1981. Nearly every respondent experienced wage increases, paid more for raw materials, fuel/energy, and transportation, and absorbed increases in maintenance costs.

For 85% of those answering the survey question about wage increases, the cost of labor went up 9.25% (weighted average). All regions hovered around that figure. The average increase in the Southwest was 10.5% followed by 9.92% in the Northeast, 9.46% in the West, 8.74% in the North Central region, and 8.43% in the Southeast.

The cost of raw materials went up for nearly all (97%) of those answering the question. The national average increase was 10.3%. On a regional basis, the West paid the highest increase—12.8%. The Southwest and North Central and Northeast all experienced increases of slightly more than 10%; the Southeast, at 8.72%, was the lowest.

Fuel/energy costs went up by a weighted average of 20.7% for 90% of those answering the question. In the survey, this large jump was balanced by others who either experienced no increases or decreased their fuel/energy costs. (One respondent estimated that a new curing system had cut his energy costs by 80%.)

But, for those who paid more for fuel and energy, there was no "balance" about it. In the Southwest, costs jumped more than 25%, in the Southeast by 37.8%. The North Central region experienced increases slightly more than 17%; the West paid nearly 16% more; and, in the Northeast, costs went up about 11%.

Transportation costs also rose for about 88% of those responding to the question. Almost all of that number paid a (weighted average) increase of 12.75%. Regionally, all those reporting hovered around the 13% mark; in the West, transportation costs rose 10.6%.

Maintenance costs also were more expensive for 98% of those answering the question. The increase, on a national basis, was 14.7%. The lack of parts and the higher cost of parts that were available headed the list of maintenance headaches followed by the upkeep of trucks. Maintenance of molds and pallets also was mentioned frequently.

The overall cost of doing business—wages, raw materials, fuel/energy, maintenance, and transportation—rose, for those companies reporting, by a weighted average of 10.6%. At the same time, prices were increased only 8.4% on a national basis. And fewer producers raised prices—only 62.4% of those who answered the question—a reflection of the highly competitive situation throughout the country.

Promotion is one item that does not rank highly on the list of industry priorities. Of the 87% who answered the question, about 13% indicated they do not spend any part of the sales dollar on marketing, promotion, and advertising. The others spend around 2%.

Outlook for 1982

In contrast to a year ago, when more than 50% of the respondents felt business would increase in 1981, this year's respondents who feel the same total only about 36%. Another 33.5% believe 1982 will be the same as 1981. Considering the state of business in 1981, it would seem logical to put that 33.5% in with those (about 11%) who are pessimistic and believe business will decline nearly 13% in the coming year. Nearly 20% refused to commit themselves either way, marking the answer "unsure."

Members of the industry are willing, nation-wide, to spend more than $22 million on new plant, new equipment, and/or modernization and expansion of existing facilities.

Regionally, the most optimism is in the Southeast and West. In the Southeast, $4.2 million is planned for new plant expenditure, $675,000 for new equipment, and $340,000 on modernization. In the West, the figures are $7.3 million for new plant, $578,000 for new equipment, and more than $3 million for modernization and expansion. As was the case a year ago, plans—particularly for new plants or expansion—are contingent upon an upswing in the economy. ●

Summary
1981 Concrete Masonry Survey

Review of 1981

Production (as reported in 8-in. equivalents)

% of usable answers:	93.1%
1981 vs. 1980	
% down:	59.8%
% up:	21.1%
% even:	18.9%
Overall volume change:	−9.5%

Lightweight vs. standard weight block

% reporting a mix:	68%
Of that number, % reporting an increase in l.w.	23%
% reporting a decrease in l.w.	25%
% remaining even with 1980 mix	52.17%

Prices:

% answering question:	97.2%
Of that number, % who raised prices:	62.41%
% increase (weighted average)	8.4%

Costs:

• *Wages:* % of respondents answering question:	97.9%
Of that number, % paying increase:	85.2%
% increase (weighted average)	9.25%
• *Raw Materials:* % answering question:	91.03%
Of that number, % paying an increase:	97%
% increase (weighted average)	10.3%
• *Fuel/Energy:* % answering question:	88.27%
Of that number, % paying more for fuel/energy:	89.8%
% increase (weighted average)	20.7%
• *Transportation:* % answering question:	88.27%
Of that number, % paying more for transportation:	98.4%
% increase (weighted average)	12.75%
• *Maintenance:* % answering question:	86.89%
Of that number, % paying increased costs	98%
% increase (weighted average)	14.7%
• *Promotion:* % answering the question	87%
Of that number, % not spending money for promotion	13%
% of sales dollars spent by remaining 44% (weighted average)	2.4%

Outlook for 1982

Business expectations: (100% response)

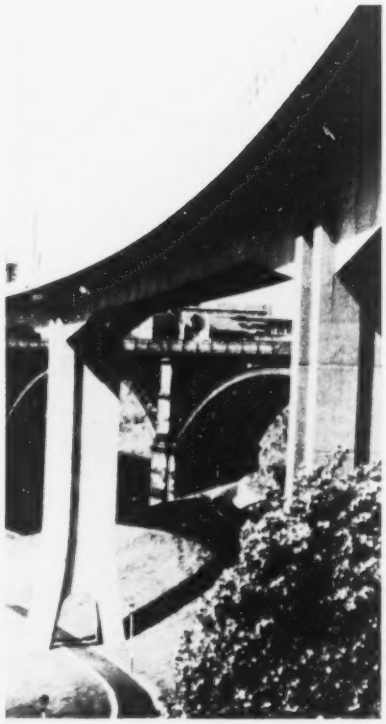
% expecting an increase:	35.6%
% increase expected:	13.4% (weighted average)
% expecting the same:	33.56%
% expecting decline:	10.95%
% decline expected:	12.9% (weighted average)
% unsure	19.86%

Plans for 1982

New plant expenditures:	$11.5 million
Equipment expenditures:	$3.046 million
Modernization/ Expansion:	$7.6 million
Total expenditures planned:	$22,213,000.00

Prestressed concrete

Regional gains fuel optimism



Summary
Concrete Magazine's
Prestressed Concrete Survey

Review of 1981	
Industry output	
1981 vs. 1980 – 8.4%	
Pricing of products	
prices raised (% replies)	70%
% of raise	7.9%
No change (% replies)	29%
Costs	
• Wages	
Increased (% replies)	97%
% increased	7.8%
• Maintenance	
Increased (% replies)	88%
% increased	10.7%
• Raw materials	
Increased (% replies)	93%
% increased	7.1%
• Energy	
Increased (% replies)	95%
% increased	15%
Outlook for 1982	
Production gain (% replies)	43%
Production drop (% replies)	16%
No change	25%
Unsure	16%
Plans for 1982	
New plants (% replies)	10%
Replace equipment (% replies)	36%
Expansion (% replies)	36%

BY CHARLES STEELE

Despite posting an overall production decline of 8.4%, the prestressed concrete industry is showing signs of recovery and a possible return to record levels of 1974. In 1981, the producers surveyed reported a gain in every area of the country, with the exception of the Northeast. The steep 32% decline in this area offset gains of 11.7% in the North-Central region; 4.4% in the West; and 9% in the Southeast.

• Spiraling costs cooled slightly in 1981, as 70% of the respondents raised prices by only 7.9%, significantly less than the 11.2% average price hike implemented by 87% of the respondents in 1980. Of those that increased prices, 88% did so by less than 10%.

• Operating costs also continued to raise, at rates slightly less than those of a year ago. This year, 97% of those surveyed raised wages 7.8%. One year ago, wages rose by more than 10.9%. Less than one-third of prestressed concrete producers participating in the survey granted wage increases of more than 10% in 1981.

Maintenance costs, set at 17.3% one year ago, increased by 10.7% in 1981, and raw material costs, up 12.22% in 1980, escalated 7.1% this year. The greatest increases in operating costs were in the area of fuel and energy, rising an average of 15%, respondents noted.

• Last year, more than 53% of prestressed concrete producers predicted a gain in output of 20%. Again, in 1982, producers expect to increase volume. Of those surveyed, 43% believe output will increase by an average of 16%. Only 25% of the respondents predict that business will decline, placing the average drop at 16% of other respondents, 25% predict no change in business, and 16% report they are unsure.

• One-tenth of the prestressers plan to build a new plant in 1982, and 36% report they will replace equipment. An equal number will expand and modernize their facilities. Of those that plan to build a new plant, they reported anticipated expenditure averaging $925,000, with 50% budgeting more than $1 million. Those indicating plans to expand and modernize report an average expenditure of $469,000, with 22% planning to spend more than $1 million. Of the 36% adding equipment, 22% will spend more than $500,000, and 9% more than $1 million.

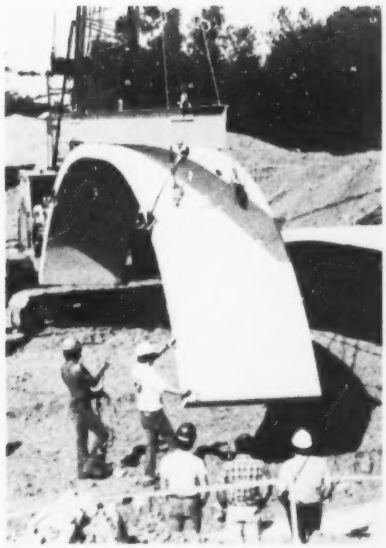
• In this year's survey, almost three-quarters of those polled identified a specific factor in maintenance. Trucks accounted for 19% of responses, followed by cranes at 17%, and forklifts, 14%.

Of the sample, 82% of respondents perform pretensioning; 3% were exclusively involved in post-tensioning and 15% do both. Also revealed, 78% of respondents advertise, spending an average of 2.7% of their sales dollar on promotion. •

Precast concrete

Industry returns to pattern of continued growth

BY CHARLES STEELE



Rebounding from a slight 1980 production decline, caused by lethargic performance in the Midwest, the precast concrete industry posted a healthy 12.6% gain in all areas of the United States in 1981. This year, precasters report a return to the steady growth pattern which first surfaced in 1975. Great gains in production were reported in the West and Southeast, with total production increases of 27% and 34% respectively. Aiding the turnabout was improvement in the North Central region. One year ago, production declined by 16%, midwestern precasters reported. This year, 46% of the respondents from the same region posted an increase, while 37% report a decline. These producers enjoyed an overall production gain of 8%.

In every area of the nation, at least 40% of the precasters answering the survey increased production. Leading was the Southeast and Northeast, with 68% and 56% increases respectively.

Last year, precasters had predicted this increase in production, citing superior insulation ratings and pent-up housing demand as factors that would boost business. At that time, 56% predicted a production gain in 1981, and only 2% predicted a decrease. This year precasters again are optimistic, as 39% predict production will rise by an average of 19.7%. Only 14% foresee a business decline, averaging 13%. Of the remaining respondents, 35% believe the production volume will stay the same, and 11% are unsure.

• Inflationary pressures, while still significant, abated slightly in 1981. This year's sampling reveals that 79% of the precasters had to raise prices an average of 9.1%, compared to the 86% that raised prices an averge of 9.25% in 1980. At the same time, 91% of the precasters surveyed increased wages by 9%, less than the 9.72% figure posted a year ago. Maintenance costs, escalated at a rate of 14.7% this year, and prices of raw materials increased at a rate of 12.6%.

Also, 87% of the respondents absorbed higher energy costs, averaging 14%.

• Precasters were involved in a widening range of markets in 1981. The survey revealed 46% were concentrated in residential precasting; 25% in utilities; and 34% in architectural markets. Also, 37% produced specialty items and burial vaults.

• This year, 69% of the respondents identified a specific maintenance problem. Of these trucks were identified by 53%. Forklifts, forms, and mixers followed in frequency, each cited by 10% or less of the sample.

• Precasters revealed plans to build, expand, or add equipment. In 1982, 9% of the precasters surveyed plans to build a new plant, compared to 12% who indicated plans to do so last year. Of these, 21% expect to spend more than $500,000. This year, 26% of the respondents plan to expand or modernize an existing business at an average cost of $90,000. A significant percentage, 38%, plan to spend an average of $141,000 on new equipment in the coming year.

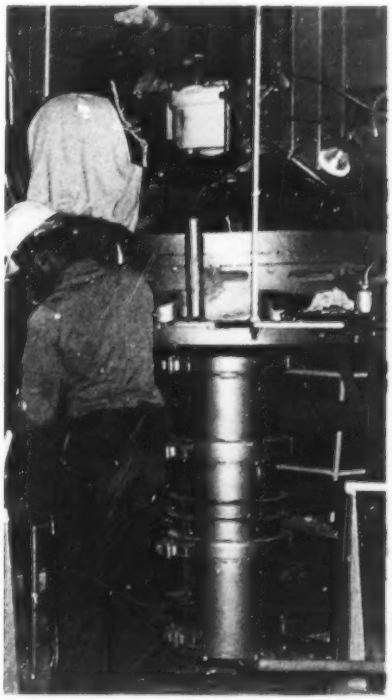
• In 1981, 71% of the sample budgeted money for advertising and promotion. The producers of precast concrete will continue to promote their product as an energy-saving and fire-resistant building material, with the hope that in 1982 lowered interest rates will release demand for housing and new construction. •

Summary
Concrete Magazine's Precast Concrete Survey

Review of 1981	
Industry output	
1980 vs. 1981 +12.6%	
Pricing of products	
Prices raised (% replies)	79%
% raised	9.1%
Costs	
• Wages	
Increased (% replies)	91%
% increased	9.1%
• Maintenance	
Increased (% replies)	87%
% increased	14.7%
• Raw materials	
Increased (% replies)	96%
% increased	12.6%
• Energy	
Increased (% replies)	87%
% increased	14%
Outlook for 1982	
Production gain (% replies)	39%
% of gain	19%
Production drop (% replies)	14%
% of drop	13%
Plans for 1982	
New plants (% replies)	9%
Replace equipment (% replies)	38%
Expansion (% replies)	26%

Concrete pipe

Production decline reflects cutbacks in project funding, construction



BY CHARLES STEELE

Concrete pipe production continued to decline through 1981, following a pattern that began last year after 4 consecutive years of growth. Overall pipe production dropped 16%, a figure equal to last year's decline in output. Volume dropped in every region of the nation, including the West, the only area to post an increase in 1980.

Hardest hit was the Northeast, where pipe production declined 42%, and the North Central area, down 6%. In each of the remaining regions surveyed, production declined by less than 1½%.

Because market potential for pipe is dependent on water and sewer programs enacted and funded by federal and state governments, these declines are a reflection of cutbacks in funding, and part of the federal government's attempt to lower inflation.

In the most recent concrete pipe survey, published in the January, 1980 issue of *Modern Concrete*, pipe producers evidenced optimism that business conditions would improve. Last year, 37% anticipated a production gain while 16% predicted a decline. This year, pipe producers are less optimistic, believing 1982 production will continue to decline as federal funding of projects within the EPA, Federal Highway Administration, and HUD is held below set budget ceilings.

In all, 20% of the respondents in the 1982 survey predict their business will increase by an average of 14.54%, while 35% predicted business will decline by 20%. One-quarter of the sample said business will stay the same; 20% reported they were unsure. The only region of the nation in which a plurality of pipe producers anticipate increased 1982 business is the South; 45% expect volume to rise, outnumbering the 35% predicting a decline.

- Inflation continued to escalate the cost of doing business; 92% of respondents raised wages by an average of 8.45%. Increased costs of maintenance, raw materials, and energy, absorbed by the vast majority of producers, were significant.

Pipe producers reported the price of energy increased by 17.3%; maintenance 13.8%; and raw material 9.8%.

- This year, 64% of the respondents identified a specific maintenance factor as being most troublesome. Trucks were singled out by 24% of the sample, followed by forklifts and pipe making machines.
- Spending plans indicate 4.6% of producers will build a new plant in 1982. Also, 21% will replace equipment, and 11% will expand and modernize existing facilities. Producers who are expanding and modernizing their plants will spend an average of $212,000. Those buying equipment have set a budget average of $244,000. ●

Summary
Concrete Magazine's Concrete Pipe Survey

Review of 1981	
Industry output— 1981 vs. 1980 – 16%	
Pricing of products	
Prices raised (% replies)	73%
% raised	9.05%
Costs	
• Wages	
Increased (% replies)	92%
% increased	8.45%
• Maintenance	
Increased (% replies)	91%
% increased	13.8%
• Raw materials	
Increased (% of replies)	93%
% of increase	9.8%
• Energy	
Increased (% of replies)	89%
% of increase	17.3%
Outlook for 1982	
Production gain (% replies)	20%
% of gain	14.54%
Production drop (% replies)	35%
% of drop	20%
No change	25%
Unsure	20%
Plans for 1982	
New plants (% replies)	4.6%
Replace equipment (% replies)	21%
Expansion (% replies)	11%

concrete
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